

IN THE SPECIFICATION:

Please amend the Specification as follows.

Please amend paragraphs 1 and 2 of page 2, and paragraphs 1-4 of page 3 as follows:

In order to achieve the object, the present invention is configured, ~~as recited in claim 1 mentioned below~~, to have a legged mobile robot equipped with articulated legs such that it moves by driving each leg by an actuator associated therewith: characterized in that: each leg has at least a first joint and a second joint located below the first joint in the gravitational direction; and that the actuator that drives the second joint is located at least one of a position same as that of the first joint and a position above the first joint in the gravitational direction. Thus, since it is configured such that each leg has at least a first joint and second joint located below the first joint in the gravitational direction; and that the actuator that drives the second joint is located at least one of a position same as that of the first joint and a position above the first joint in the gravitational direction, it becomes possible to lighten the weight of the ground-contacting ends of the legs (distal end side, i.e., the side of the second joint) and thereby provide a legged mobile robot enabling reduction of the inertial forces occurring in the legs during moving, particularly during high-speed moving.

The present invention is further configured, ~~as recited in claim 2 mentioned below~~, such that at least one of an output shaft of the actuator that drives the second joint and an output shaft of a transmission element to which an output of the output shaft of the actuator is transmitted, is located coaxially with an axis of the first joint, and the second joint is connected to the output shaft located coaxially with the axis of the first joint to be driven through a rod. Thus, since it is configured such that at least one of an output shaft

of the actuator that drives the second joint and an output shaft of a transmission element to which an output of the actuator is transmitted, is located coaxially with an axis of the first joint, and the second joint is connected to the output shaft located coaxially with the axis of the first joint to be driven through a rod made of a rigid body, in addition to the advantages mentioned above, even when the second joint and actuator or the second joint and transmission element are located apart from each other, driving force can be transmitted with good accuracy. Further, the first joint and second joint can be angularly adjusted independently.

The present invention is further configured, ~~as recited in claim 3 mentioned below~~, such that the second joint has rotation axes that are arranged in at least two different directions. Thus, since it is configured such that the second joint has rotation axes that are arranged in at least two different directions, smooth moving of the robot is made possible.

The present invention is further configured, ~~as recited in claim 4 mentioned below~~, such that the second joint is driven by a plurality of actuators and is connected to at least one of output shafts of the actuators and output shafts of transmission elements to which outputs of the actuators are transmitted, to be driven through a plurality of rods. Thus, since it is configured such that the second joint is driven by a plurality of actuators and is connected to at least one of output shafts of the actuators and output shafts of transmission elements to which outputs of the output shafts of the actuators are transmitted, to be driven through a plurality of rods, the second joint is driven by a plurality of actuators and is connected to at least one of output shafts of the actuators and output shafts of transmission elements to which outputs of the actuators are transmitted, to be driven through a plurality of rods, in addition to the advantages mentioned above, the driving of the second joint (more specifically, the ankle joints which require large driving force) can be conducted using the sum of the driving forces of a plurality of actuators, and the actuators that drive the second joint can be made compact.

The present invention is further configured, as recited in claim 5 mentioned below, such that the rods are located to be spaced by prescribed distances from axes of the second joints. Thus, since it is configured such that the rods connecting the second joint and the outputs of the actuators (or the transmission elements to which their outputs are transmitted) are located to be spaced by prescribed distances from axes of the second joints, in addition to the advantages mentioned above, the second joint can be driven by a small force.

The present invention is further configured, as recited in claim 6 mentioned below, such that the second joint is one among the joints that the legs have, that is located farthest toward a ground-contacting end. Thus, since it is configured such that the second joint is one among the joints that the legs have, that is located farthest toward a ground-contacting end, the distance between the ground-contact end of the leg and the second joint (ankle joint) can be reduced, thereby enabling to improve the stability of the robot.